

# Development of Strategic Seed Reserves for Household Food Security in the Rainfall Insecure States of Nigeria

(IITA/USAID Project S02: 620-007)

## Highlights of 2003 Achievements (Contribution to USAID Annual Report data request)

### Goal

To enhance household food security, income generation and poverty alleviation in northern Nigeria.

### Objectives

- i) Multiplication of breeder and foundation seeds of selected varieties
- ii) Training farmers in seed production techniques and catalyzing farmer to farmer seed diffusion of selected improved early maturing varieties of cowpea, millet and sorghum for strategic seed reserve development at household level
- iii) Catalyzing the formation of seed growers association to establish strategic seed reserves at local government and state levels. This will ensure ready availability of improved seeds to farmers and will help to both increase their productivity as well as to provide them with the potential flexibility needed to adjust their cropping system in the wake of erratic rainfall in any given year.

### Progress Report:

#### No. of primary participating farmers

A total of 575 men and women farmers participated in IITA/USAID Strategic Seed Project in Kaduna, Kano, Jigawa and FCT Abuja during 2003. These were our primary target farmers. However, this project was linked for seed production purpose to other special projects such as 'Crop-Livestock Project' funded GATSBY Foundation, 'Holistic Farming System Project' funded by DANIDA and 'Fodder Innovation Project' funded by DFID. This raised the number of participating farmers from 575 to 929 (Table 1)

**Table1: Gender and geopolitical spread of the project.**

Project	Total Number of Farmers				Women farmers		Number of villages		
	Kaduna	Kano	Jigawa	FCT	Kano	Jigawa	Kaduna	Kano	Jigawa
USAID-seed	123	371	61	20	44	9	15	18	3
Gatsby	139	155	-		48	-	12	3	-
DANIDA	-	25	-		-	-	-	2	-
DFID	15	30	-		-	-	1	2	-

The total area planted by these farmers and expected amount of seeds produced are indicated in table 2. The exact yield figures are being compiled but the expected amount of improved cowpea seeds produced is about 767 tons.

Table 2. Hectarage planted and Expected Seed (tons) productions By Participating Project Farmers in 2003

	Kaduna State				Kano State			Jigawa State		
	Expected yield				Expected yield			Expected yield		
	Hectare	1stcowpea	2ndcowpea	Cereal	Hectare	cowpea	Cereal	Hectare	cowpea	Cereal
USAID-seed	55.6	50.0	66.7	66.7	231.8	278.2	347.7	39.8	43.8	47.8
Gatsby	98.4	88.5	118.0	118.0	62.0	74.4	93.0			
DANIDA	-	-	-	-	10.0	12.0	15.0			
DFID	6.0	5.4	7.2	7.2	16.8	20.2	25.2			
Total	160.0	144.0	191.9	191.9	320.6	384.7	480.9	39.8	43.8	47.8

## No of Secondary Adoptors

The project staff carried out a survey to determine the level of adoption in the pilot villages. Results showed that about 18615 farmers in Kano state and 555 farmers in Kaduna state adopted the new technology on their own after observing on-farm trials in the previous year.

## Training

The following types of training were conducted during the year .

1. Seed production technology
2. Safe handling and use of agro-chemicals
3. Knowledge of sprayer, maintenance and spraying methods
4. Uses and maintenance of protective clothing
5. Knowledge of seed processing and packaging techniques
6. Linking Seed Dealers with Agro Dealers for seed business.



All the 929 participating farmers were trained in seed production techniques and safe handling of agro-chemicals. In addition, special training were organized to link agro-dealers with farmers for sale of seeds and other inputs. The date of training, locations and number of participants are indicated in table 3.

**Table 3 : Farmers, Agro-Input Dealers and Contract Sprayers trained in Kano State.**

<b>Location</b>				
<b>Clients</b>	Bichi	Kura	Takai	Gaya
Farmers	10	10	18	29
Contract Sprayers	24	30	18	35
Agro-Input Dealers	12	10	12	18
Date of Training	22.4.03	30.7.03	10.10.03	22.10.03

Two more training workshops are planned for Gwarzo and Kano City during then month of November.

**Field Days :** A number of field days were organized in Kano, Jigawa, Kaduna states and Abuja FCT each of which was attended by a large number (between 200 to 500) farmers, scientists, policy makers, extension workers as well donor representatives. The events were widely covered by the press reaching over 500,000 farmers in the four states.

## **SUCCESS STORIES :**

All the participating farmers are very happy with increased production and income amounting to 300% gain over traditional systems. Some of them have broken their poverty circle and not only paid their debts but they also invested in income generating ventures like, purchase of milling machines, bullocks, motorcycles and trucks. Many of them are now sending their children to schools. A few example are given below:

1. Hajia Hindatu Musa is one of the twenty-one women farmers participating in the ongoing IITA/USAID Strategic Seed Project in Garko village of Kano State. She is the secretary of the registered Gamaryawa Women Farmers Association in Garko.

Hajia Hindatu, a 60 years old woman has been in the business of farming for more than 36 years, growing mostly sorghum, millet, groundnut and a little local cowpea. She says, “I have been farming

for the past 36 years, but what I realized from growing improved cowpea in the last three years surpasses all my 36 years of farming put together”. Hajia used to harvest about 60 kg of local cowpea from one-hectare land but now she produces over 800 kg from the same plot size. She plans to purchase a Motorcycle for commercial purposes after the sale of her cowpea seeds this year. Hajia is also making arrangement to rent more cropland to increase her cowpea production from 2004 season and on wards. Hajia is full of thanks to IITA and USAID for bringing this life saving technology to her village.

2. Alhaji Rabilu Sule is the leader of the Gwagwaranda Fadama Farmers Cooperative Society of Gwagwaranda village in Kano State. Alhaji Rabilu has been part of IITA improved cowpea seed diffusion project since 1998. He says, “Before this time, I have been finding it difficult to feed my family, but now I own a Ford Truck, milling machine and have performed Hajj to Mecca all from proceed from cowpea which I normally grow twice in a year because of it’s early maturity”. Alhaji Sule is optimistic that he will make more money now that he is part of IITA/USAID Seed Project, being equipped with skills in seed production from series of training on seed production strategies. “I can now produce pure certified seed which would be sold at higher prize to seed companies and input dealers”.

Alhaji Sule has been able to own two work bulls, sixteen goats, six sheep, eight poultry and one donkey through which he generates about thirteen truckloads of manure yearly as he has learnt from IITA to confine his livestock and feed them with cowpea fodder. “My family now lives a happy and healthy life thanks to IITA/USAID Seed Project”.

3. Malam Hassan NaGambo is one of the two hundred and seventy seven farmers participating in IITA/USAID Strategic Seed Project in Giwa Local Government Council (LGC) of Kaduna State.. In 2002 he planted IITA improved cowpea variety on a 0.4-hectare plot size. He was so thrilled with the bumper harvest he got that he decided to increase the area to one-hectare plot in 2003. From the sale of his first cowpea alone this year, he made about naira 50,000 from which he paid his debt of N7820 and purchased a calf worth N15000 .He is expecting good harvest from his second cowpea and maize from the same field from which he plans to purchase another calf; the two would be used as work bull. The story of Malam NaGambo proves that it is possible to break poverty cycle through the practice of double cropping of improved cowpea varieties in combination with modified cropping system.

4. Alhaji Ahmed Galadima grew up in a predominantly Fulani village of Badume in Kano state. He is one of the IITA contact farmers since 1998 for on-farm demonstration and seed project. Through the extra income generated from the improved technology, Alhaji Galadima today owns nine goats, nine sheep, two cows and one donkey. He proudly says, “With these number of animals I generate more income and grow more cowpea each year to generate enough food and fodder to feed them”. Before Alhaji Galadima came in contact with IITA, he has lost all his animals to snakebite, thefts, knocked down by vehicles, diseases etc. Now instead of his children roaming about with the animals he has learnt to confine his livestock in the compound and his wives feeding them with cowpea fodder and return the manure to the soil. Eight of his children now find time to go to school. Besides producing enough manure for soil fertility restoration he said that he produces enough food to feed his family through out the year unlike before when he usually run short of food before the year-ends. From the

sale of cowpea seed he has bought milling machine, wheelbarrow and bicycle and he is planning to buy more livestock since he has several bales of cowpea fodder to feed on.

In summary, IITA/USAID Planting Seed Project is very successful and it is bringing revolutionary changes in the lives of many farmers and rapidly spreading the improved technology in northern Nigeria.

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